



Low 5-HIAA (5-Hydroxyindoleacetic Acid) Diet

General Description

Some patients with malignant carcinoid tumors excrete elevated levels of 5-HIAA as a result of increased serotonin synthesis by the tumor. The quantitative urinary excretion of this metabolite is used to diagnose serotonin overproduction. (1).

This diet eliminates foods containing high concentrations of 5-HIAA and its precursor serotonin. Ingestion of these foods results in elevated levels of 5-HIAA in the urine and may lead to false-positive results on diagnostic testing.

Indications for Use

This diet is instituted at least 24 hours prior to and during 24-hour urine collection for 5-HIAA analysis.

Guidelines

All of the following, or foods containing any the following, should be excluded from the diet for at least 24 hours prior to and during the urine collection (1,2,3):

- Banana
- Plantain
- Pineapple
- Kiwi fruit
- Plums
- Prunes, prune juice
- Tomatoes, foods containing tomato
- Pecans
- Walnuts (Black, English, and butternuts)
- Hickory nuts, pignuts

References:

1.Feldman, JM and Lee, EM. Serotonin content of foods: effect on urinary excretion of 5-hydroxyindoleacetic acid. Amer J Clin Nutr 1985;42:639-643.

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2. Kema IP, Schellings AM, Meiborg G, Hoppenbrouwerw CJ, Muskiet FA. Influences of a serotonin- and dopamine-rich diet on platelet serotonin content and urinary excretion of biogenic amines and their metabolites. *Clin Chem* 1992 Sep;38(9):1730-6.
3. Mashige F, Matsushima Y, Kanazawa H, Sakuma I, Takai N, Bessho F, Ohkubo A. Acidic catecholamine metabolites and 5-hydroxyindoleacetic acid in urine: the influence of diet. *Ann Clin Biochem* 1996;33:43-9.